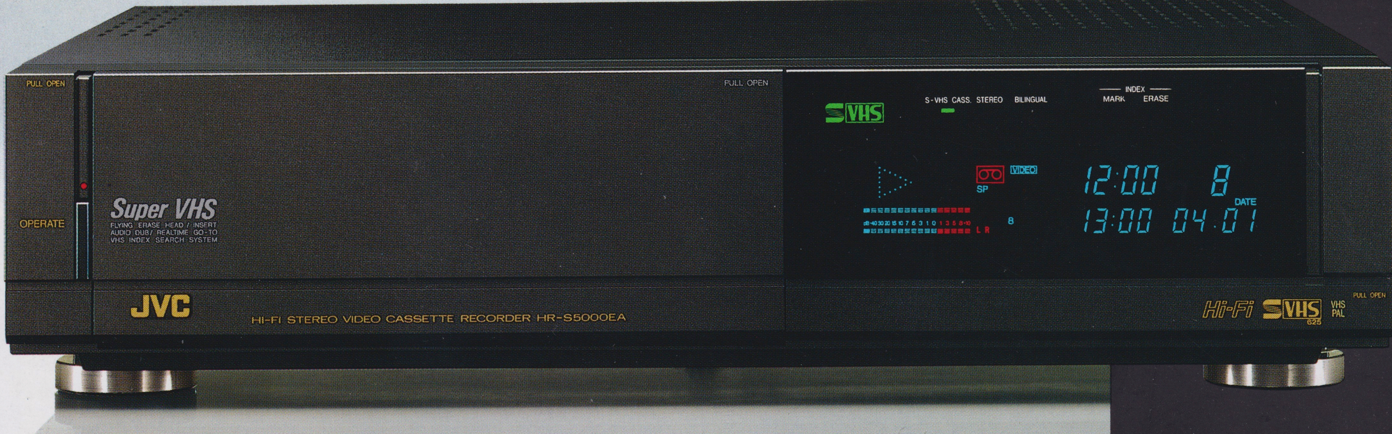
JVC

SUPER VHS Hi-Fi STEREO VIDEO CASSETTE RECORDER

HR-S5000EA

S VHS 625 Hi-Fi STEREO HQ High Quality VHS

S Super VHS


PULL OPEN
PULL OPEN
S VHS
S-VHS CASS. STEREO BILINGUAL
INDEX
MARK ERASE
OPERATE
Super VHS
FLYING ERASE HEAD / INSERT AUDIO DUB / REALTIME GO-TO VHS INDEX SEARCH SYSTEM
SP
VIDEO
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JVC
HI-FI STEREO VIDEO CASSETTE RECORDER HR-S5000EA
Hi-Fi S VHS 625
VHS PAL
PULL OPEN

SUPER VHS IS HERE. FROM JVC.

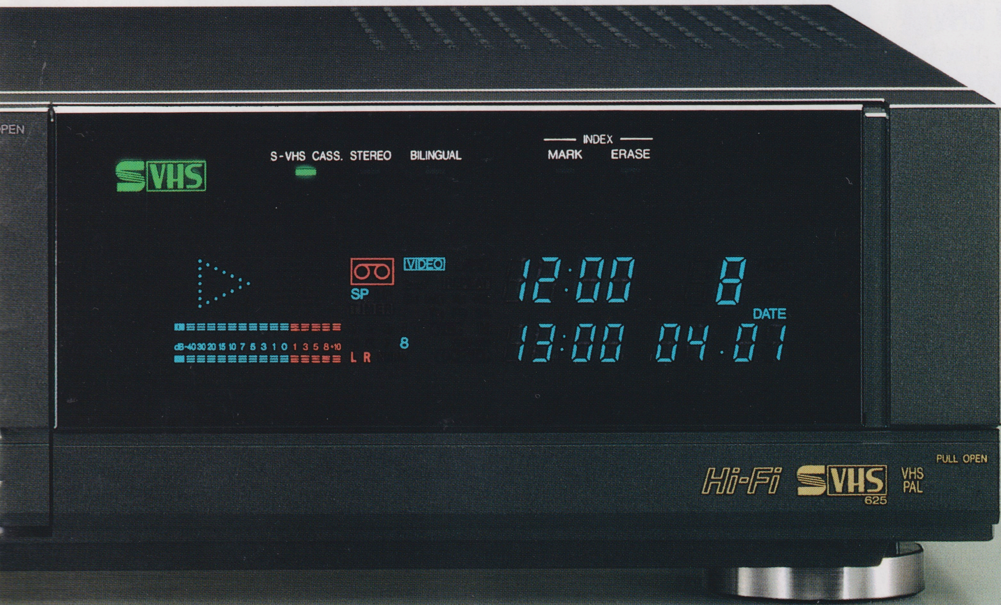
PULL OPEN
OPERATE
Super VHS
FLYING ERASE HEAD / INSERT
AUDIO DUB/ REALTIME GO-TO
VHS INDEX SEARCH SYSTEM
JVC
HI-FI STEREO VIDEO CASSETTE RECORDER HR-S5000EA

We've done it again. First, we revolutionized home entertainment with VHS. Now, we're revolutionizing picture quality with Super VHS. Our sensational new Super VHS video recorder, the HR-S5000, is a videophile's dream come true. Boasting horizontal resolution of more than 400 lines, the HR-S5000 delivers a picture so superb, so striking in its detail, and so startling in its clarity, that you've quite literally never seen anything like it. A picture that's leading video into a new era. Yet a picture that can be seen on the TV screens of today.

With its flush-front surface, open-out control panel, and inset display panel, the HR-S5000's appearance is one of sheer elegance. An elegance of form that is matched in every feature and function. Features like Hi-Fi VHS stereo for sound quality that comes close to matching the sonic brilliance of digital audio. A Sound-Multiplex stereo decoder. Flying erase head. Audio dubbing. Realtime Search. And an LCD-programmable remote control.

That's not all. The HR-S5000 is virtually two decks in one. Besides Super VHS, it can play back or record in VHS. So you can still enjoy your video library and continue to have access to all the prerecorded VHS software available today. This twin-speed recorder is also an economy deck because Super VHS picture resolution even in the LP mode is better than VHS resolution in the SP mode.

The HR-S5000 Super VHS Video Recorder. Made by JVC. Because only JVC could have made beauty state of the art.



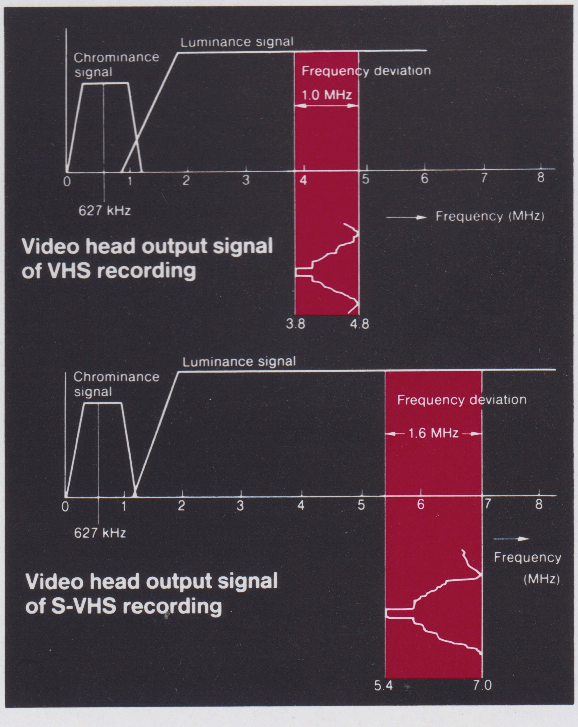
THE TECHNOLOGY BEHIND SUPER VHS

JVC
OPERATE

Super Resolution

With more than 400 lines of horizontal resolution, Super VHS gives you a picture of unsurpassed clarity, detail, and presence. That's because Super VHS records the luminance signal (black-and-white signal that gives the image its shape) in a higher and broader carrier frequency band (5.4 — 7.0 MHz for Super VHS vs. 3.8 — 4.8 MHz for VHS) with a greater frequency deviation (see diagrams). This results in a significant increase in the horizontal resolution and in the signal-to-noise ratio which is further improved by the use of a non-linear sub-emphasis system. It all adds up to a picture so good that it will meet the standards of even the most demanding video connoisseur.

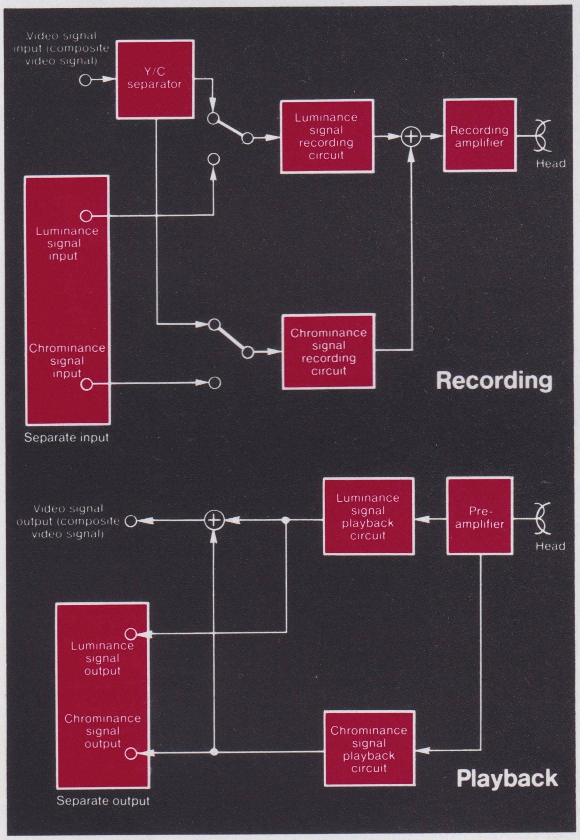
Then, to maximize the benefits of the higher-frequency signal of Super VHS, the HR-S5000 incorporates a new high-performance tuner capable of accommodating a wider video bandwidth. So you lose nothing when you record a television programme. And when you watch recordings made with Super VHS VideoMovies or any other high-resolution camera, you'll experience the full potential of Super VHS.


Luminance signal
Chrominance signal
Frequency deviation
1.0 MHz
0
1
2
3
4
5
6
7
8
627 kHz
Frequency (MHz)
Video head output signal of VHS recording
3.8
4.8
Luminance signal
Chrominance signal
Frequency deviation
1.6 MHz
0
1
2
3
4
5
6
7
8
627 kHz
Frequency (MHz)
Video head output signal of S-VHS recording
5.4
7.0

Separate Y/C Input/Output With VRI Comb Filter

To make sure that you can enjoy all the benefits of high-frequency recordings, the HR-S5000's Super VHS system processes the luminance (Y) and chrominance (C) signals separately (see diagrams). The separated Y/C signals are kept apart during both recording and playback, then delivered as they are via separate Y/C outputs to appropriately-equipped televisions*. This virtually eliminates the mutual interference between signal components which normally tends to produce cross-colour disturbance. And, to ensure that Y/C signal separation is as accurate as possible, JVC's Super VHS system incorporates a newly-developed VRI (Vertical Resolution Improvement) Comb Filter. As a result, contrasts are sharper, details are clearer, and colour reproduction is much more true-to-life.

*TVs with S-Video (4-pin) input. TVs with Y/C-compatible SCART (21-pin Euro-) connector. TVs with RGB-compatible SCART (21-pin Euro-) connector (optional KM-V7EG RGB Signal Converter required).

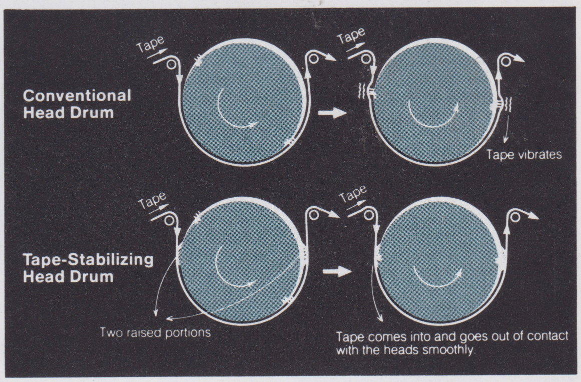

Video signal input (composite video signal)
Y/C separator
Luminance signal recording circuit
Recording amplifier
Head
Luminance signal input
Chrominance signal input
Chrominance signal recording circuit
Recording
Separate input
Video signal output (composite video signal)
Luminance signal playback circuit
Pre-amplifier
Head
Luminance signal output
Chrominance signal output
Chrominance signal playback circuit
Playback
Separate output

A Unified Standard

The Super VHS Euro System has been designed to be compatible with any television colour system using the 625 scanning line standard. This reduces the inconvenience associated with the incompatibility of tapes recorded on different colour systems. And, when prerecorded Super VHS software becomes available, you'll have access to a wider variety of programmes because you'll be able to purchase recorded S-VHS tapes anywhere in the world (except in NTSC areas) and play them back on the HR-S5000.

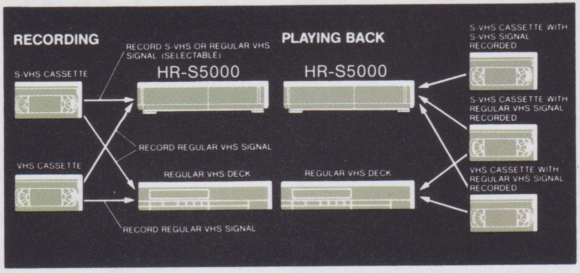
New Tape-Stabilizing (TS) Head Drum

Super VHS was designed to provide the best-possible picture reproduction, so even miniscule variations in picture quality cannot be tolerated. To make sure that that quality is never compromised, JVC has upgraded all aspects of video recorder technology. For a picture of unprecedented stability, the HR-S5000 incorporates a newly-developed TS (Tape-Stabilizing) head drum to prevent "head knocking" — a phenomenon which may occur when the tape comes into or goes out of contact with the video head. The JVC-developed TS head drum has minutely raised edges at the points where the tape enters and exits the drum. These "shoulders" stabilize tape running, allowing the HR-S5000 to deliver a stable, rock-steady picture with almost no jitter.


Conventional Head Drum
Tape
Tape
Tape vibrates
Tape-Stabilizing Head Drum
Tape
Tape
Two raised portions
Tape comes into and goes out of contact with the heads smoothly.

VHS Compatibility

Yet with all this advanced technology, you can still play back or record in VHS on the HR-S5000. That's because Super VHS is an extension of VHS — not a completely new format — so it gives you access to prerecorded VHS software and won't render your tape collection obsolete.

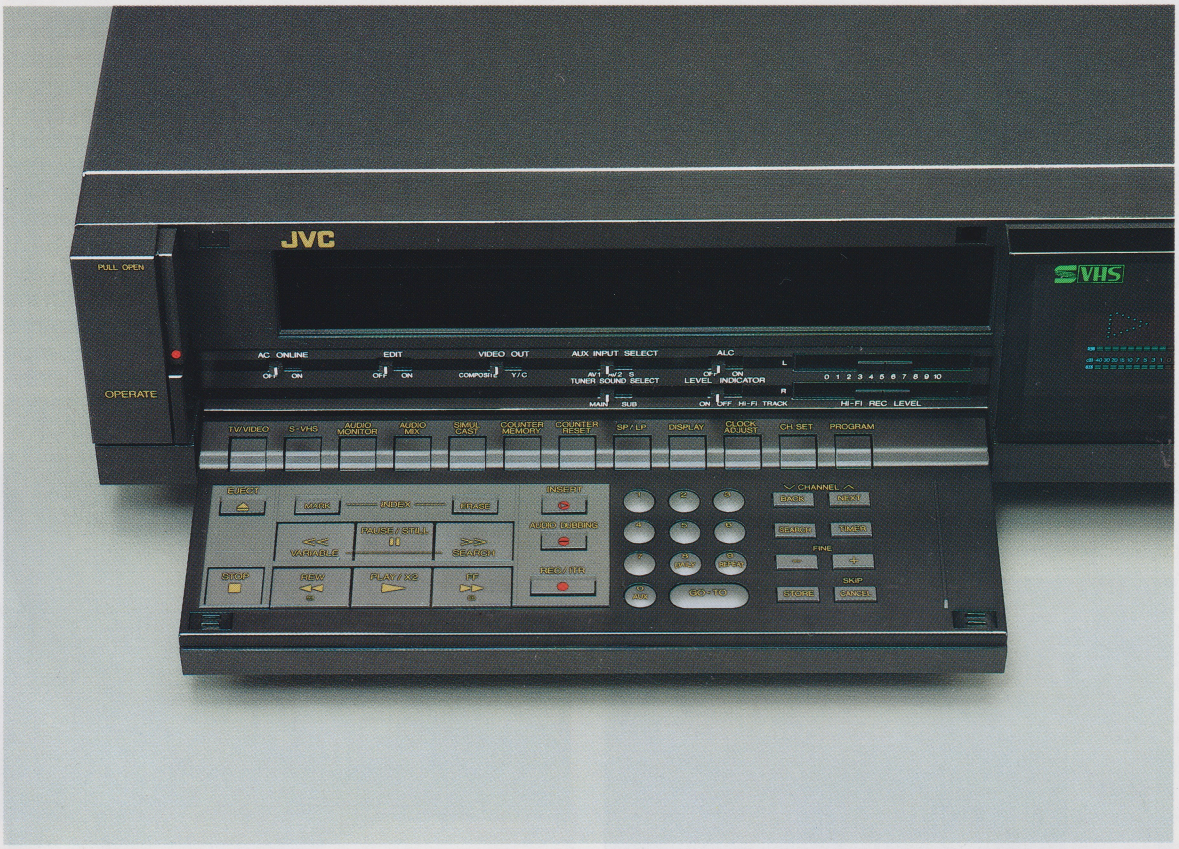

RECORDING
RECORD S-VHS OR REGULAR VHS SIGNAL (SELECTABLE)
S-VHS CASSETTE
HR-S5000
PLAYING BACK
HR-S5000
S-VHS CASSETTE WITH S-VHS SIGNAL RECORDED
S-VHS CASSETTE WITH REGULAR VHS SIGNAL RECORDED
RECORD REGULAR VHS SIGNAL
VHS CASSETTE
REGULAR VHS DECK
REGULAR VHS DECK
VHS CASSETTE WITH REGULAR VHS SIGNAL RECORDED
RECORD REGULAR VHS SIGNAL

Super VHS Tapes For Super Pictures

To record in Super VHS, you must use the new high-particle density Super VHS tape. This tape can also be used as high-grade VHS tape.

JVC
S-VHS
180
120
60
SUPER VHS

SE-180: 3 hours (SP)/6 hours (LP)
SE-120: 2 hours (SP)/4 hours (LP)
SE-60: 1 hour (SP)/2 hours (LP)


JVC
S-VHS
PULL OPEN
OPERATE
AC ONLINE
EDIT
VIDEO OUT
AUX INPUT SELECT
ALC
HI-FI REC LEVEL
T.V./VIDEO
S-VHS
AUDIO MONITOR
AUDIO MIX
SIMUL CAST
COUNTER MEMORY
COUNTER RESET
SP/LP
DISPLAY
CLOCK ADJUST
CH SET
PROGRAM
EJECT
MARK
INDEX
ERASE
INSERT
AUDIO DUBBING
PAUSE/STILL
VARIABLE
SEARCH
STOP
REW
PLAY/X2
FF
REC/ITR
GO-TO
CHANNEL
BACK
NEXT
SEARCH
TIMER
FINE
SKIP
STORE
CANCEL

SUPER CONVENIENT FEATURES

Hi-Fi Stereo Sound And Built-in Sound-Multiplex Stereo Decoder

Sound is half of the audio-visual experience, the element that brings moving pictures to life. And the better the sound, the more you wll enjoy the picture. That's why most newly-released VHS software incorporates a superior-quality Hi-Fi soundtrack. And that's why it only makes sense for a Super VHS VCR to let you maximize the audio half of the audio-visual experience with high-fidelity sound reproduction. For the very best sound, the HR-S5000 uses two independent rotary FM-audio heads and the depth-multiplex recording technique to record audio signals deep in the video tape's magnetic coating, while recording video signals on the surface. Interference between audio and video signals is thus eliminated and the result is superb, crystal-clear sound reproduction with a dynamic range of more than 90 dB. To make that sound even cleaner, there's also an advanced audio switching noise reduction circuit that processes the left and right channel signals independently to accurately compensate for signal loss and ensure that switching noise is undetectable. It all adds up to a high-fidelity stereo performance that rivals CD and DAT, and leaves conventinal audio decks far behind.

To help you make the most of its high-fidelity audio capability, the HR-S5000 incorporates a Sound-Multiplex decoder for the reception and recording of stereo and bilingual programmes. Together, Hi-Fi VHS and Sound-Multiplex stereo form a perfect and mutually beneficial combination. You'll hear sound as it was meant to be heard — full, rich, realistic sound that will give new intensity to the audio-visual experience.

Super Double-Azimuth 4-Head (Super DA-4) System And Improved Playback Circuitry

Based on the proven performance of the DA-4 head system, the Super DA-4 head system incorporates new, improved heads developed especially for Super VHS VCRs. These work together with a newly-developed low-noise pre-amplifier built into the playback circuitry which increases the playback signal's carrier-to-noise ratio (C/N) by 4 dB. As a result, performance is higher in all modes and noise during special-effects playback is virtually eliminated.

HQ (High Quality) Picture Circuits For VHS

For the best possible picture reproduction in VHS recording and playback, the HR-S5000 incorporates HQ picture-improvement circuits. These include a DE (Detail Enhancer), a YNR (Luminance Signal Noise Reduction) to reduce jittery noise, and a WCL (White Clip) which raises the white clip level, for a clearer, more vivid VHS picture.

LCD-Programmable VCR/TV Unified Remote Control

JVC's ingenious LCD remote control incorporates a memory chip that can store up to four sets of pre-programmed data. Because the LCD and the remote memories are independent of the VCR's display and memories, you can pre-set the programmes you want to record without having to refer to the VCR. Timer information is displayed on the LCD as you enter it and can be transferred to the deck whenever you like. Naturally, the remote also controls all VCR functions and, as an added bonus, it lets you control the power on/off, channel, volume, and AV mode of designated TVs.

LP Mode For Up To Eight Hours Of Recording

Thanks to the Super Double-Azimuth 4-Head system, the HR-S5000 is able to record up to six hours of programmes on a single cassette in Super VHS (SE-180), or up to eight hours in VHS (E-240). Better yet, even in the LP mode, Super VHS picture quality is far superior to that offered by VHS in the SP mode — a fact which makes Super VHS recordings very economical.

Advanced Editing Functions

For clean, professional-quality insert edits without the on-screen noise which appears when editing with a conventional machine, the HR-S5000 incorporates a Flying Erase Head. This head scans the video tracks before they reach the video heads, erasing the exact portions of the track which are to be replaced before they are re-recorded. The combination of this feature with the Zero Frame automatic backspace and special insert editing circuits means that a new scene can be inserted into a section of pre-recorded tape with no overlapping and almost no picture distortion at edit-in and edit-out points. There's also an audio dubbing function which lets you add an additional soundtrack — such as a voice-over narration — to a Hi-Fi programme.

PLL Frequency Synthesized Tuner

The HR-S5000's PLL frequency synthesized tuner is pretuned to receive all VHF and UHF broadcast frequencies. An auto-scan channel setting system makes it easy to store up to 48 channels with stable reception ensured by the PLL tuner's advanced electronics. A 10-key random access function gives you immediate access to the station of your choice.

Realtime Tape Counter With Time Search And Go-To

The Realtime tape counter is able to show tape time precisely in hours, minutes, and seconds in all operation modes by counting the number of control pulses. Not only does this give you the elapsed time of a certain programme or edit down to the last second, but, with the Realtime Search function, it lets you automatically access any point on the tape simply by specifying how far in "time" the point you want to reach is from your current position in either direction. Similarly, Realtime Go-To will move the tape to a point a specified time away from the beginning of the tape.

Index Search System

The HR-S5000's VHS Index Search System is an advanced digital programme search system which takes advantage of JVC's new half-loading mechanism to facilitate the location of index codes in the FF and REW modes (up to 120 times normal LP speed). These digital index codes are automatically recorded on the tape's control track whenever a recording is initiated and can later be located for fast programme access. Index Search can find any one of up to 9 programmes in either direction on a pre-recorded tape. This system also provides manual mark/erase facilities so you can add or delete codes wherever you like.

Intro Search

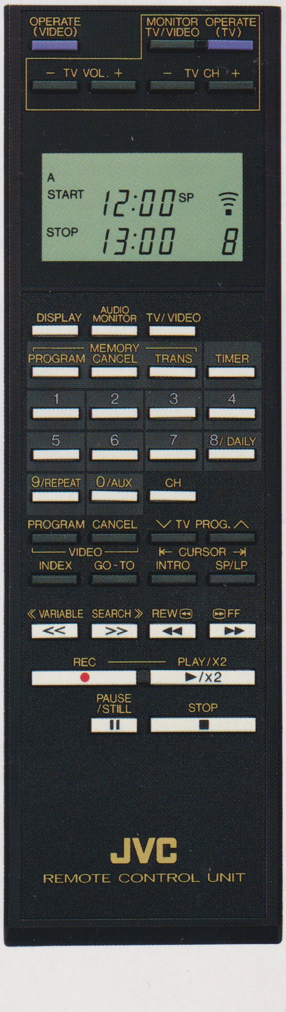
This super-convenient function automatically locates all indexed programmes on a pre-recorded tape and plays back a segment from the beginning of each programme for about 5 seconds in fast-motion. When you're not sure what programmes are on a tape, you'll find this feature very useful.

Systems Flexibility

In addition to its special 4-pin S-VIDEO input and output, the HR-S5000 is equipped with two 21-pin AV SCART connectors capable of handling both composite and separate Y/C signals.This not only ensures compatibility with a wider range of televisions, it facilitates dubbing connections because one of the connectors is exclusively for input. That means an editing or dubbing source such as a VideoMovie or second recorder can be connected without the fuss of disconnecting and reconnecting. Or, the second source unit can be connected permanently if desired.

Other Features

■ Special-effects playback (search at 3, 5, and 9 times normal speed, double-speed playback, noiseless stills, frame advance, and slow-motion at 1/30, 1/24, 1/18, 1/12, and 1/6 of normal) ■ 1-Year/8-event programmable timer ■ Peak-hold audio level indicators/Tracking meter ■ Edit switch for best possible dubs ■ Headphone jack with adjustable output level ■ Shuttle Search with lock function ■ Remaining tape time indicator ■ On-screen record-pause mode display ■ One-button instant timer recording ■ Counter memory function ■ Electronic tracking controls ■ Automatic function including Next-Function Memory ■ Picture sharpness control ■ Switchable AC outlet



SPECIFICATIONS

Format: S-VHS/VHS PAL standard with Hi-Fi audio
Video recording system: Rotary, two-head helical scan system with slant double-azimuth combination video heads
Hi-Fi audio recording system: Deep-layer recording system conforming to stereo Hi-Fi VHS standard
No. of audio channels: 2 Hi-Fi audio channels
1 normal audio channel
Video signal system: PAL colour and separated Y/C signals, 625 lines
Tape width: 12.65 mm
Tape speed (SP): 23.39 mm/sec
(LP): 11.70 mm/sec
Maximum recording time (SP): 240 min. with E-240 video cassette
(LP): 480 min. with E-240 video cassette
Temperature
Operating: 5°C to 40°C
Storage: –20°C to 60°C
Humidity/
Operating: 5 % to 80 %
Storage: 35 % to 80 %
Power requirement: 240 V ∿ , 50/60 Hz
Power consumption: 40 W

Video
Input: 0.5 to 2.0 Vp-p, 75 ohms, unbalanced
Output: 1.0 Vp-p, 75 ohms, unbalanced
Signal-to-noise ratio: 43 dB (Rohde & Schwarz noise meter) with picture sharpness control at centre position
Horizontal resolution: More than 400 lines (S-VHS)/250 lines (VHS) with picture sharpness control at centre position

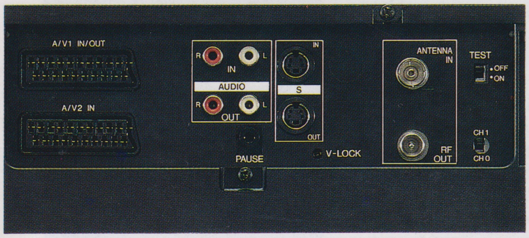
Audio
Input: Mic: –67 dBs, high impedance, unbalanced
AUDIO IN connector (RCA x 2): –8 dBs, 50 k-ohms, unbalanced
A/V1 IN/OUT and A/V2 IN sockets (21-pin Peri connectors): –3.8 dBs (CENELEC standard), 10 k-ohms, unbalanced
Output level: A/V1 IN/OUT socket (21-pin Peri connector): –3.8 dBs (CENELEC standard), high impedance load
AUDIO OUT connector (RCA x 2): –6 dBs, high impedance load
Output impedance: Less than 1 k-ohm, unbalanced
Signal-to-noise ratio: More than 40 dB
Frequency range: 70 Hz to 10,000 Hz

Hi-Fi audio
Frequency response: 20 Hz – 20,000 Hz
Dynamic range: More than 90 dB
Wow and flutter: Less than 0.005 % WRMS

TV tuner/RF section
Channel storage capacity: 48 channels
Aerial input: VHF band I: CH 0 – 5 (Australia)
CH 1 – 3 (New Zealand)
VHF band III: CH 5A – 11 (Australia)
CH 4 – 11 (New Zealand)
UHF band IV/V: CH 28 – 69 (Australia)
CH 21 – 69 (New Zealand)
Aerial output VHF channel 0 or 1 of the Australian channel system (switchable preset to channel 1 when shipped)

Digital clock/timer
Clock display: 24-hour fluorescent digital display with day and date indication
Reference frequency: Quartz controlled
Start time setting: Within one year
Programming capacity: 8 programmes

Dimensions: 435(W) x 105(H) x 380(D) mm
Weight: 7.4 kg
Provided accessories: Aerial cable, Infrared remote control, "R6"-size battery x 2, Audio cable (RCA-RCA), S-Video cable (4-pin/4-pin), Cassette tape (SE-180)
Optional accessory: RGB signal converter (KM-V7)



JVC EXPERIENCE

Words Worth a Thousand Pictures

When you select a JVC video recorder, you are investing in today's finest video technology. A 30-year history in video that includes the creation of VHS itself shows in every video recorder we make. To buy JVC is to invest in quality. Experience the dependability, the satisfaction, the beautifully clear pictures that speak for themselves. Experience JVC.

Invest in Quality

S-VIDEO-Equipped Colour Monitor/Receivers

AV-S280
70-cm Colour Monitor/Receiver

AV-S250
63-cm Colour Monitor/Receiver

JVC offers two S-VIDEO-equipped colour monitor/receivers as ideal companion units for the HR-S5000. With the superior picture resolution of these TVs (630 lines with the AV-S280 and 560 lines with the AV-S250) and the S-VIDEO input terminal, you'll be able to enjoy the maximum benefit of Super VHS's dramatic picture improvements.

JVC's Lineup of S-VHS Video Cassettes

S-VHS 625

JVC
S-VHS
180
SE-180
SUPER VHS
JVC
S-VHS
120
SE-120
SUPER VHS
JVC
S-VHS
60
SE-60
SUPER VHS

SE-180/SE-120/SE-60
The SE-180 allows 3 hours (SP mode) or 6 hours (LP mode) of Super VHS recording with the HR-S5000, while the SE-120 allows 2 hours (SP mode) or 4 hours (LP mode), and the SE-60 allows 1 hour (SP mode) or 2 hours (LP mode).

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